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EXAMINER
WANG, JIN CHENG

ART UNIT	PAPER NUMBER
2672	10

DATE MAILED: 07/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/864,107	Applicant(s) VAN LIERE, FILIPS
	Examiner Jin-Cheng Wang	Art Unit 2672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Amendment

The amendment filed on 06/30/2003 has been entered. Claims 1, 10, 19 have been amended.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 10-13 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Echerer et al. U.S. Pat. No. 5,740,267.

3. Claim 1:

U.S. Pat. No. 5,740,267 to Echerer teaches a method for providing and processing a cursored user interaction (column 8, lines 37-67, column 9, lines 1-23) with a spatially displayed medical image (column 7, lines 21-29) and producing graphics related data on said medical image (column 12, lines 42-56), wherein said method comprises the steps of:

Providing a menu-less graphical interface for display said medical image (e.g., column 12, lines 20-30; column 13, lines 25-50);

Controlling a mouse computer interface device, having at least one button (e.g., column 12, lines 20-30; column 13, lines 25-50);

Displaying a pointer symbol on said graphical interface, wherein said pointer symbol (e.g., a cursor) represents a current position of said mouse on said graphical interface (e.g., column 8, lines 35-55; column 12, lines 20-30; column 13, lines 25-50);

Tracking a status of each of said at least one button (e.g., column 12, lines 20-30; column 13, lines 25-50);

Detecting a position of said mouse, wherein said position detection step is activated upon actuation of one of the at least one button (e.g., column 12, lines 20-30; column 13, lines 25-50; column 15, lines 15-35); and

Providing a predefined interaction with said medical image, wherein said interaction is selected from a group of predefined interactions based on said status of each of said at least one button during the interval between multiple said position detection steps (e.g., column 16, lines 15-67; column 17, lines 1-67; column 18, lines 1-64).

Claim 2:

The claim 2 encompasses the same scope of invention as that of claim 1 except additional claimed limitation that a single-point actuating/positioning assigns an actual pixel position and/pr a pixel intensity quantity to the point in question. However, Echerer further discloses the claimed limitation that a single-point actuating/positioning assigns an actual pixel position and/pr a pixel intensity quantity to the point in question (column 12, lines 42-56).

Claim 3:

The claim 3 encompasses the same scope of invention as that of claim 1 except additional claimed limitation that a point pair actuating/positioning assigns a distance value to the pair in

question. However, Echerer further discloses the claimed limitation that a point pair actuating/positioning assigns a distance value to the pair in question (column 13, lines 12-49, column 15, lines 9-11).

Claim 4:

The claim 4 encompasses the same scope of invention as that of claim 1 except additional claimed limitation that a triple-point actuating/positioning assigns an angle value quantity to a middle point of the triple. However, Echerer further discloses the claimed limitation that a triple-point actuating/positioning assigns an angle value quantity to a middle point of the triple (column 15, lines 12-19).

4. Claims 10-13:

The claim 10, 11, 12, 13 encompasses the same scope of invention as that of claim 1, 2, 3, 4 respectively except additional claimed limitation of "an apparatus". However, Echerer further discloses the claimed limitation of "an apparatus" (column 5, lines 12-37).

Claim 19:

The claim 19 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of a machine-readable computer program. However, Echerer further discloses the claimed limitation of "a machine-readable computer program (column 9, lines 30-36, figures 6-9).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 5-9 and 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Echerer et al. U.S. Patent No. 5,740,267 in view of Fenster et al. U.S. Patent No. 5,454,371.

7. Claim 5:

(a) The claim 5 encompasses the same scope of invention as that of claim 1 except additional claimed limitation that "multiple-point actuating/positioning for an open or closed point sequence assigns an area value quantity to a concave region delimited by the sequence in question".

(b) However, Echerer is silent on the claimed limitation that "multiple-point actuating/positioning for an open or closed point sequence assigns an area value quantity to a concave region delimited by the sequence in question".

(c) Fenster teaches the claimed limitation that "multiple-point actuating/positioning for an open or closed point sequence assigns an area value quantity to a concave region delimited by the sequence in question" (Fenster column 23, lines 32-39).

(d) It would have been obvious to one of ordinary skill in the art to have incorporated the Fenster's "measure area" approach using the graphical input device into Echerer's method of processing cursored user interaction because Echerer implicitly suggests "measure areas" for medical image manipulation using a cursor device (column 9, lines 1-16) and therefore suggesting an obvious modification of the Echerer's method for processing a radiograph. Moreover, both references have addressed the same subject matter relating to the method for processing radiographic images (Echerer's abstract and Fenster's abstract).

(e) One having the ordinary skill in the art would have been motivated to do this because it would have enabled a user of the graphical input device to measure a variety of image quantities such as distances and areas of the medical image within the image plane to allow the display technique to be used in clinical ultrasound machine and computer (column 23, lines 25-39, column 24, lines 20-35).

8. Claim 6:

(a) The claim 6 encompasses the same scope of invention as that of claim 1 except additional claimed limitation that "a freehand-drawn actuating/positioning for an open or closed point sequence assigns an area value quantity to a concave region delimited by the sequence in question".

(b) However, Echerer is silent on the claimed limitation that "a freehand-drawn actuating/positioning for an open or closed point sequence assigns an area value quantity to a concave region delimited by the sequence in question".

(c) Fenster teaches the claimed limitation that "a freehand-drawn actuating/positioning for an open or closed point sequence assigns an area value quantity to a concave region delimited by the sequence in question" (Fenster column 23, lines 32-39).

(d) It would have been obvious to one of ordinary skill in the art to have incorporated the Fenster's "measure area" approach using the graphical input device into Echerer's method of processing cursored user interaction because Echerer implicitly suggests "measure areas" for medical image manipulation using a cursor device (column 9, lines 1-16) and therefore suggesting an obvious modification of the Echerer's method for processing a radiograph.

Moreover, both references have addressed the same subject matter relating to the method for processing radiographic images (Echerer's abstract and Fenster's abstract).

(e) One having the ordinary skill in the art would have been motivated to do this because it would have enabled a user of the graphical input device to measure a variety of image quantities such as distances and areas of the medical image within the image plane to allow the display technique to be used in clinical ultrasound machine and computer (column 23, lines 25-39, column 24, lines 20-35).

9. Claim 7:

(a) The claim 7 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of "a multiple-point actuating/positioning for an open or closed point sequence assigns a poly-line measurement quantity to the sequence so drawn".

(b) However, Echerer is silent on the claimed limitation of "a multiple-point actuating/positioning for an open or closed point sequence assigns a poly-line measurement quantity to the sequence so drawn".

(c) Fenster teaches the claimed limitation of "a multiple-point actuating/positioning for an open or closed point sequence assigns a poly-line measurement quantity to the sequence so drawn" (overall line length, Fenster column 23, lines 32-39).

(d) It would have been obvious to one of ordinary skill in the art to have incorporated the Fenster's "measure overall line length" approach using the graphical input device into Echerer's method of processing cursored user interaction because Echerer implicitly suggests "measure circumferences" for the area encircled by line segments in medical image manipulation using a cursor device (column 9, lines 1-16) and therefore suggesting an obvious modification of the

Echerer's method for processing a radiograph. Moreover, both references have addressed the same subject matter relating to the method for processing radiographic images (Echerer's abstract and Fenster's abstract).

(e) One having the ordinary skill in the art would have been motivated to do this because it would have enabled a user of the graphical input device to measure a variety of image quantities such as distances and areas of the medical image within the image plane to allow the display technique to be used in clinical ultrasound machine and computer (column 23, lines 25-39, column 24, lines 20-35).

10. Claim 8:

(a) The claim 8 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of "a freehand-drawn actuating/positioning for an open or closed point sequence assigns a poly-line measurement quantity to the sequence so drawn".

(b) However, Echerer is silent on the claimed limitation of "a freehand-drawn actuating/positioning for an open or closed point sequence assigns a poly-line measurement quantity to the sequence so drawn".

(c) Fenster teaches the claimed limitation of "a freehand-drawn actuating/positioning for an open or closed point sequence assigns a poly-line measurement quantity to the sequence so drawn" (overall line length, Fenster column 23, lines 32-39).

(d) It would have been obvious to one of ordinary skill in the art to have incorporated the Fenster's "measure overall line length" approach using the graphical input device into Echerer's method of processing cursored user interaction because Echerer implicitly suggests "measure circumferences" for the area encircled by line segments in medical image manipulation using a

cursor device (column 9, lines 1-16) and therefore suggesting an obvious modification of the Echerer's method for processing a radiograph. Moreover, both references have addressed the same subject matter relating to the method for processing radiographic images (Echerer's abstract and Fenster's abstract).

(e) One having the ordinary skill in the art would have been motivated to do this because it would have enabled a user of the graphical input device to measure a variety of image quantities such as distances and areas of the medical image within the image plane to allow the display technique to be used in clinical ultrasound machine and computer (column 23, lines 25-39, column 24, lines 20-35).

11. Claim 9:

The claim 9 encompasses the same scope of invention as that of any of Claims 2 to 8 except additional claimed limitation of assigning a pixel staticizing to an assigned geometrical entity. However, Echerer further discloses the claimed limitation of assigning a pixel staticizing to an assigned geometrical entity (column 9, lines 1-23, column 15, lines 9-11).

12. Claims 14-18:

The claim 14, 15, 16, 17, 18 encompasses the same scope of invention as that of claim 5, 6, 7, 8, 9 except additional claimed limitation of "an apparatus". However, Echerer further discloses the claimed limitation of "an apparatus" (column 5, lines 12-37).

Remarks

13. Applicant's arguments, filed 06/30/2003, paper number 9, have been fully considered but they are not deemed to be persuasive.

14. Applicant argues in essence with respect to the amended claim 1 and similar claims that:

"In contrast, Echerer et al. discloses the step of selecting an action to be performed from a menu and then providing mouse positions by clicking on regions of a medical image. Accordingly, Echerer et al. teaches away from Applicant's claimed invention. Therefore, it is believed that Claims 1, 10 and 19 are patentably distinct over the prior art reference and accordingly, withdrawal of the rejection with respect to Claims 1, 10 and 19 under 35 U.S.C. 102(b) over Echerer et al. and allowance thereof are respectfully requested."

This is not found persuasive for the following reasons:

Although Echerer discloses selecting an action to be performed from a menu, the reference also teaches providing a menu-less graphical interface for displaying the medical image. Some examples of the menu-less graphical interface can be found in both the Manual Analysis and Automatic Analysis function. When performing a Manual Analysis, although a menu is initially used, the subsequent steps of performing analysis are menu-less graphical user interface exclusively relying upon the mouse button clicks. The Automatic Analysis does not however rely upon the menu-based graphical interface (e.g., column 16, lines 15-67; column 17, lines 1-67; column 18, lines 1-64).

Conclusion

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jin-Cheng Wang whose telephone number is (703) 605-1213. The examiner can normally be reached on 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Razavi can be reached on (703) 305-4713. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-6606 for regular communications and (703) 308-6606 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 395-3900.

jcw
July 22, 2003

MICHAEL RAZAVI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600